

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
8 April 2004 (08.04.2004)

PCT

(10) International Publication Number
WO 2004/029227 A1

- (51) International Patent Classification⁷: C12N 1/14, Hamilton (NZ). EASTON, Herrick, Sydney [NZ/NZ]; 42 Ward Street, Palmerston North (NZ).
A01N 63/04
- (21) International Application Number: PCT/NZ2003/000219 (74) Agents: WILSON, Kathryn, S. et al.; Level 3, Spicer Building, 329 Durham Street, P.O. Box 2201, Christchurch (NZ).
- (22) International Filing Date: 26 September 2003 (26.09.2003) (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 521653 27 September 2002 (27.09.2002) NZ
- (71) Applicant (*for all designated States except US*): AGRE-SEARCH LIMITED [NZ/NZ]; East Street, Ruakura Campus, Hamilton (NZ).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): TAPPER, Brian, Anthony [NZ/NZ]; 76 Slacks Road, Palmerston North (NZ). CHRISTENSEN, Michael, John [NZ/NZ]; 6A Jensen Street, Palmerston North (NZ). FLETCHER, Lester, Ronald [NZ/NZ]; 47 School Road, Tai Tapu (NZ). LANE, Geoffrey, Alexander [NZ/NZ]; 7 Lowestoft Place, Palmerston North (NZ). LATCH, Garrick, Cecil, Morland [NZ/NZ]; 42 Batt Street, Palmerston North (NZ). POPAY, Alison, Jean [NZ/NZ]; 14 Dillon Place,
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: GRASS ENDOPHYTES

(57) Abstract: The present invention relates to a combination of a Neotyphodium species endophyte or endophyte culture in a symbiotic association with a host grass which association does not cause symptoms of toxicosis in animals through exclusion of ergovaline but, due to the inclusion of alkaloids including agroclavine, setoclavine or isosetoclavine, retains the ability to resist abiotic stresses and protect the grass from pests.

WO 2004/029227 A1